

REMARKS

The present application includes claims 1-22, all of which have been rejected. In particular, claims 1-22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 6,438,201 ("Mazess") in view of U.S. 2002/0079458 ("Zur"). The Applicants respectfully traverse these claim rejections for at least the reasons previously discussed during prosecution and the following:

Independent claim 1 recites, in part, "comparing said difference to a threshold to detect a shape artifact from a prior image due to scintillator hysteresis, wherein said shape artifact results from an area of trapped electrical charge in a scintillator." Independent claim 12 recites, in part, "wherein said difference is compared to a threshold to detect a shape artifact from a prior image due to scintillator hysteresis, wherein said shape artifact results from an area of trapped electrical charge in a scintillator."

As discussed in the Background section of the present application, a shape artifact may appear in an image as a "ghost" of a previous x-ray exposure. Such artifacts occur in areas of increased signal levels in a scintillator of an x-ray detector. The increased signal levels are the result of areas with trapped charge. That is, electrical charge becomes stored in areas of the scintillator. The trapped charge fills up the trapping centers in the scintillator resulting in an increase of the image signal or gain of the scintillator. This increase in the gain of the scintillator is known as hysteresis.

The Office Action acknowledges that "Mazess does not specifically teach detecting the artifact **due to scintillator hysteresis** wherein said shape artifact **result from an area of trapped electric charge in a scintillator.**" See April 16, 2008 Office Action at page 3

(emphasis added). Thus, the Office Action acknowledges that Mazess does not describe, teach or suggest (1) detecting a shape artifact due to scintillator hysteresis and (2) a shape artifact resulting from an area of trapped electrical charge in a scintillator.

To overcome these deficiencies, the Office Action cites Zur. *See id.* However, the Office Action does not assert that Zur discloses “detecting a shape artifact due to scintillator hysteresis,” which the Office Action acknowledges Mazess does not describe, teach or suggest. *See id.* Further, the Office Action does not cite any text from Zur, in general, or any description that discloses the limitations missing from Mazess. *See id.* Instead, the Office Action merely cites a few reference numerals and Figures 3 and 11A from Zur. *See id.* However, the Applicants respectfully submit that the cited Figures and reference numerals from Zur do not describe, teach or suggest (1) detecting a shape artifact due to scintillator hysteresis and (2) a shape artifact resulting from an area of trapped electrical charge in a scintillator. **Indeed, Zur does not even recite the term “hysteresis.”**

The Office Action summarily concludes, however, that “[i]t would have been obvious to one of ordinary skill in the art to detect... the shape artifact or the ghost effects that result from an area of trapped electrical charge in Mazess detector 13 in order to measure charge flow within the sensor and detecting the measurable charge flow to provide a high quality digital image representation of the x-ray image.” *See* April 16, 2008 Office Action at page 4. Notably missing from this statement is any mention that the shape artifact is “due to scintillator hysteresis,” which the Office Action acknowledges is not disclosed in Mazess, and which is not even mentioned in Zur. Further, while the Office Action states that “ghost effects that result from an area of trapped electrical charge in Mazess detector 13,” the Office Action provides no citation from Mazess or

Zur regarding such trapped electrical charge. *See id.* at page 4. Indeed, the Office Action acknowledges that “Mazess does not specifically teach detecting the shape artifact due to scintillator hysteresis” (*see id.* at page 3), and the Office Action cites nothing from Zur that describes this limitation.

Thus, for at least these reasons, the Applicants respectfully request reconsideration of the claim rejections. The Applicants respectfully submit that the Office Action has not established a *prima facie* case of obviousness with respect to the pending claims.

In general, the Office Action makes various statements regarding the pending claims and the cited references that are now moot in light of the above. Thus, the Applicants will not address such statements at the present time. The Applicants expressly reserve the right, however, to challenge such statements in the future should the need arise (e.g., if such statement should become relevant by appearing in a future claim rejection).

The Applicants respectfully request that the outstanding rejections be reconsidered and withdrawn for at least the reasons discussed above. If the Examiner has any questions or the Applicants can be of any assistance, the Examiner is invited to contact the undersigned attorney.

The Commissioner is authorized to charge any necessary fees, or credit any overpayment to the Deposit Account No. 07-0845.

Respectfully submitted,

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